

Storch, R.L. 1979. Livestock/streamside management programs in eastern Oregon. Pages 56-59 in Cope, O.B. ed. Grazing and Riparian/Stream Ecosystems: Proceedings of the Forum. Trout Unlimited Inc., Denver, Co. 94pp.

LOCATION: OR

KEYWORDS: GRAZING IMPACTS, STREAM EXCLOSURES

ABSTRACT

Uncontrolled livestock grazing has seriously affected the water quality of stream throughout the country. Indiscriminate use of streams by livestock results in breaking down the streambanks, eating and trampling shrubs that shade the streams and/or provide habitat for wildlife, and disturbing the stream bottoms. The effects of such use have been erosion of streambanks, higher water temperatures, increased sedimentation, soil compaction, and reduction of the quantity and quality of forage.

Stroup, W.W., and J. Stubbendieck. 1983. Multivariate statistical methods to determine changes in botanical composition. J. of Range Manage. 36(2):208-212.

LOCATION: U.S.

KEYWORDS: MULTIVARIATE STATISTICAL METHODS, BOTANICAL COMPOSITION

ABSTRACT

Confusion exists over the proper statistical methodology to use in analyzing the effect of treatments on changes in botanical composition over time. A rationale for using multivariate statistics is presented. Basic considerations involved in the use and interpretation of multivariate statistics specifically appropriate to the botanical composition problem are given. An example of how such an analysis can be performed using a common statistical computing package (SAS) is demonstrated.

Stuber, R.J. 1985. Trout habitat, abundance, and fishing opportunities in fenced v. unfenced riparian habitat along Sheep Creek, Colorado Pages 310-314 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: CO

KEYWORDS: RECREATION, TROUT HABITAT, FENCING, UNFENCED RIPARIAN AREAS

ABSTRACT

Fencing was used to protect 40 hectares of riparian stream habitat along 2.5 km of Sheep Creek, Colorado, from adverse impacts due to heavy streamside recreation use and cattle grazing. Fish habitat within the fenced area was narrower, deeper, and less streambank alteration, and better streamside vegetation than comparable unfenced sections. Estimated trout standing crop was twice as great, and proportional stock density (PSD) was higher than in unfenced sections. There was a higher proportion of nongame fish present in unfenced sections. Projected fishing opportunities within the fenced sections were double those estimated for a comparable length of unfenced habitat along the same stream.

Swank, G.W. Streamside management units in the Pacific Northwest. Pages 435-438 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: OR

KEYWORDS: STREAMSIDE MANAGEMENT UNITS

AUTHOR/ABBREVIATED ABSTRACT

Since 1970 the National Forests in Oregon and Washington have been operating under a Regionally developed streamside management unit (SMU) concept which is essentially a stream classification system based on use made of the water with specific water quality objectives established for each of the four classes of streams.

Swanson, G.A., tech. coord. 1979. The mitigation symposium: A national workshop on mitigating losses of fish and wildlife habitats. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-65, 696pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: U.S.

KEYWORDS: WETLANDS, MINING, OIL, GAS, HYDROELECTRIC PROJECTS

ABSTRACT

Nine private organizations and eight federal agencies co-sponsored the symposium, which consisted of 133 papers presented in three concurrent sessions (and a poster session) on: coastal zone wetlands; inland wetlands; economic considerations; mining oil, and gas; planning, evaluation, and inventory; surveys; power projects; terrestrial management; aquatic management; legal and political considerations; transportation systems; and state perspectives.

Sweep, D.H., J.M. Zilincar, B.H. Smith, R.V. Hardy. 1985. Integration of riparian systems management strategies within the context of multiple use land management programs in southwestern Wyoming. Pages 371-373 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: WY

KEYWORDS: MULTIPLE USE, RIPARIAN CONDITION

ABSTRACT

The extent of multiple use activities on public lands in southwest Wyoming place significant pressure on riparian ecosystems. Our experience indicates that by using an integrated, interdisciplinary management approach, it is possible to maintain existing healthy riparian habitat, and improve or recover lost habitat.

Swenson, J.E., S.J. Knapp, P.R. Martin, and T.C. Hinz. 1983. Reliability of aerial cache surveys to monitor beaver population trends on prairie rivers in Montana. J. Wildl. Manage. 47(3):697-703.

LOCATION: MT

KEYWORDS: BEAVER, AERIAL CACHE SURVEYS

ABSTRACT

An aerial cache survey was unreliable in indicating population size or trend of beaver (Castor canadensis) on 2 prairie rivers in Montana. Accuracy in locating caches was high (about 90%) and constant among years and areas, but colony size varied among areas and years. Data on age, sex, and reproduction are needed to determine colony size and properly evaluate aerial cache-survey results.

Swenson, E.A. and C.L. Mullins. 1985. Revegetating riparian trees in southwestern floodplains. Pages 135-138 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: NM

KEYWORDS: REVEGETATION, COTTONWOOD RIO GRANDE, COTTONWOOD NARROWLEAF, WILLOW GOODING

ABSTRACT

Riparian areas continue to be drastically altered, usually by man's activities. Managers have generally been unsuccessful in using conventional techniques to replace riparian trees. Our experiments with Rio Grande cottonwood, narrowleaf cottonwood, and Gooding willow have shown that a simple and inexpensive method for their reestablishment is now available.

Szaro, R.C., and L.F. DeBano. 1985. The effects of streamflow modification on the development of the riparian ecosystem. Pages 211-213 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: AZ

KEYWORDS: FLOOD CONTROL STRUCTURE, EPHEMERAL STREAM DEVELOPMENT

ABSTRACT

The interrelationships between riparian vegetation development and hydrologic regimes in a ephemeral desert stream were examined at Whitlow Ranch Dam along Queen Creek in Pinal County, Arizona. Our data indicates that a flood control structure can have a positive impact on riparian ecosystem development and could be used as a mitigation tool to restore this critically threatened habitat.

Szaro, R.C., S.C. Belfit, and J.N. Rinne. 1985. Impact of grazing on a riparian garter snake. Pages 359-363 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: NM

KEYWORDS: GARTER SNAKE, GRAZING IMPACT

ABSTRACT

Numbers of wandering garter snakes (Thamnophis elegans vagrans) were significantly higher where cattle grazing was excluded than along grazed portions of Rio de las Vacas, a high elevation thin-leaf alder - willow riparian community in northern New Mexico. Differences can be attributed to the regeneration of streamside vegetation and the increased amount of organic debris.

Taylor, T.J. and J.S. Barclay. 1985. Renovation of a Plains State Stream--Physical problem solving. Pages 62-66 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: OK

KEYWORDS: STREAM IMPROVEMENT

ABSTRACT

Quantifiable methods do not exist to assess hydraulic effects of stream renovation. To obtain such methods, channel obstructions were modeled from field data. These models were used to show changes in flood stages resulting from obstruction removal. This simulation may provide an approach for resource planners to predict flood water control without costly stream channelization.

Thomas, J.W., C. Maser, and J.E. Rodiek. 1979. Riparian zones. Pacific Northwest Forest and Range Experiment Station. US Dep. Agric. For. Serv. Gen. Tech. Rep. PNW-80. 18pp.

LOCATION: OR

KEYWORDS: RIPARIAN HABITAT, WILDLIFE HABITAT

ABSTRACT

Riparian zones are the most critical wildlife habitats in managed rangelands. More wildlife species depend entirely on or spend disproportionately more time in this habitat than any other. The zone is also disproportionately important for grazing, recreation, timber production, fisheries production, road location, and water quality and quantity. The importance to wildlife is examined and guidance given for management.

Thomas, J.W., C. Maser, and J.E. Rodiek. 1979. Riparian Zones. Pages 40-47 in Thomas J.W. ed. Wildlife habitats in managed forests: The Blue Mountains of Oregon and Washington, US Dep. Agric. For. Serv. Agric. Handbook 553. Pacific Northwest Forest and Range Experiment Station, Portland OR. 512pp.

LOCATION: OR

KEYWORDS: TIMBER, GRAZING, RECREATION, WILDLIFE

ABSTRACT

The riparian zone is the most important type of wildlife habitat in the Blue Mountains. It is also the area of maximum potential conflict between users of timber, grazing, recreation, water, and wildlife resources. Riparian zones are usually quite sensitive to management activities and should be cautiously managed. As each riparian zone is somewhat different, the land manager should consult a wildlife biologist and a fishery biologist during the planning process.

Thomas, J.W., C. Maser, and J.E. Rodiek. 1979. Riparian zones in managed rangelands--Their importance to wildlife. Pages 21-31 in Cope, O.B. ed. Grazing and Riparian/Stream Ecosystems: Proceedings of the Forum. Trout Unlimited Inc., Denver, CO. 94pp.

LOCATION: WESTERN U.S.

KEYWORDS: WILDLIFE HABITAT, DISTURBANCE, GRAZING

REVIEWER'S ABSTRACT

Riparian zones: create a well-defined habitat zone within much drier surrounding areas; they make up a minor proportion of the overall area; they are generally more productive in terms of biomass-plant and animal than the remainder of the area; and they are a critical source of diversity within rangelands.

Vanderheyden, J. 1985. Managing multiple resources in Western Cascades forest riparian areas: An example. Pages 448-452 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: OR

KEYWORDS: FOREST RIPARIAN AREAS, MULTIPLE USE

ABSTRACT

The USDA Forest Service concepts of multiple use and riparian area dependent resources were incorporated into a district level riparian area management policy. The linkage of riparian areas to the aquatic resource and cumulative watershed processes is integrated into the policy designed to provide consistent direction for on-the-ground management.

Van Haveren, B.P., and W.L. Jackson. 1986. Concepts in stream riparian rehabilitation. Trans. N. Am. Wildl. and Nat. Res. Conf. 51:280-289.

LOCATION: CO

KEYWORDS: RIPARIAN REHABILITATION, WATERSHED MANAGEMENT

AUTHOR/ABBREVIATED ABSTRACT

Stream riparian systems undergoing major geomorphic or hydrologic adjustments should not be treated with habitat improvements until the channel has reached a new dynamic equilibrium. Riparian rehabilitation should not be attempted in stream systems where watershed condition is poor or downward-trending.



Van Velson, R. 1979. Effects of livestock grazing upon rainbow trout in Otter Creek, Nebraska. Pages 53-55 in Cope, O.B. ed. Grazing and Riparian/Stream Ecosystems: Proceedings of the Forum. Trout Unlimited Inc., Denver, CO. 94pp.

LOCATION: NE

KEYWORDS: LIVESTOCK GRAZING, GRAZING IMPACTS, HABITAT RECOVERY, BUFFER ZONE

ABSTRACT

Conditions in Otter Creek exemplified damage improper livestock-management practices can impose on trout. The habitat-improvement project resulted in recovery of the stream and a rebound of the trout population. Results of the project can result when stream habitat receives consideration after improved land-use practices are designed and implemented.

Warner, R.E., and K.M. Hendrix, eds. 1984. California riparian systems. University of California Press, Berkeley, CA 94720. 1035pp.

LOCATION: CA

KEYWORDS: RIVERINE FLOODPLAINS, FORESTS STREAMSIDE, WET MEADOWS, DESERT WASHES, PALM OASIS

ABSTRACT

Proceedings of a conference held in 1981. 128 papers that address major aspects of riparian ecosystems. Subjects of interest to wildlife biologists, fishery biologists, range managers, hydrologists, conservationists, foresters and land managers.

Warren, P.L., and C.R. Schwalbe. 1985. Herpetofauna in riparian habitats along the Colorado River in Grand Canyon. Pages 347-354 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: AZ

KEYWORDS: HERPETOFAUNA, RIPARIAN HABITAT

ABSTRACT

Lizard population densities and species composition were sampled in riparian and non-riparian habitats along the Colorado River. The highest densities were found in shoreline habitats, moderate densities in riparian habitats and lowest densities in non-riparian habitats. Rapidly fluctuating river flow levels may have a deleterious effect on lizard populations by trapping populations on alluvial bars and inundating nest sites.

Wesche, T.A., C.M. Goertler, and C.B. Frye. 1985. Importance and evaluation of instream and riparian cover in smaller trout streams. Pages 325-328 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: WY

KEYWORDS: RIPARIAN COVER, TROUT STREAMS

ABSTRACT

Cover is an important trout habitat component resulting from the geomorphological characteristics of a stream channel, the streambank interface with the riparian community, and the streamflow. This paper quantitatively describes the significance of the riparian contribution to overall stream cover as related to brown trout population size.

Willoughby, J.W., and W. Davilla. 1984. Plant species composition and life form spectra of tidal streambanks and adjacent riparian woodlands along the lower Sacramento River. Pages 642-647 in California Riparian Systems: Ecology, Conservation, and Productive Management, Warner, R.E. and K. Hendrix eds. 1035pp. University of California Press, Berkeley, CA.

LOCATION: CA

KEYWORDS: STREAMBANKS TIDAL, RIPARIAN WOODLAND PLANT SPECIES

ABSTRACT

Flora and life forms of the tidal streambank plant community along the Sacramento River near Collinsville, Solano County, California are compared to those of adjacent plant communities. The tidal streambank flora has a significantly smaller non-native component than the floras of adjacent riparian woodland and annual grassland communities. All three communities have developed in historically disturbed habitats. Rhizomatous herbs represent the predominant life form of the tidal streambank community. In contrast, the riparian woodland community has a much lower percentage of rhizomatous herbs and higher percentages of annual and woody species. Reasons for these differences are discussed.

York, J.C. 1985. Dormant stub planting techniques. Pages 513-514 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: AZ

KEYWORDS: STREAMBANK STABILAZTION, TREE PLANTING, STREAM CHANNEL EROSION

ABSTRACT

Bank and levee stabilization was done by using dormant stubs of black willow and cottonwood along the toes of banks and levees. 3-6 inch logs, 6-7 feet long, planted into the water table, resulted in exceptionally good survival and first season growth. The original 2,000 feet of plantings have survived 3 minor and 1 major flood and have given survival to the levee they protect.

Youngblood, A.P., W.G. Pagett, and A.H. Winward. 1985. Riparian community type classification in the Intermountain Region. Pages 510-512 in Riparian Ecosystems and Their Management: Reconciling Conflicting Uses. Proceedings of the Symposium. US Dep. Agric. For. Serv. Gen. Tech. Rep. RM-120, 523pp. Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.

LOCATION: ID, UT, WY

KEYWORDS: CLASSIFICATION

ABSTRACT

Classification of riparian ecosystems in Idaho, Wyoming, and Utah into different community types, based upon similarities in floristic composition, provides a tool for resource management. Diagnostic keys that utilize conspicuous plant species provide for field identification. Environmental relationships, successional status, and management implications are discussed.